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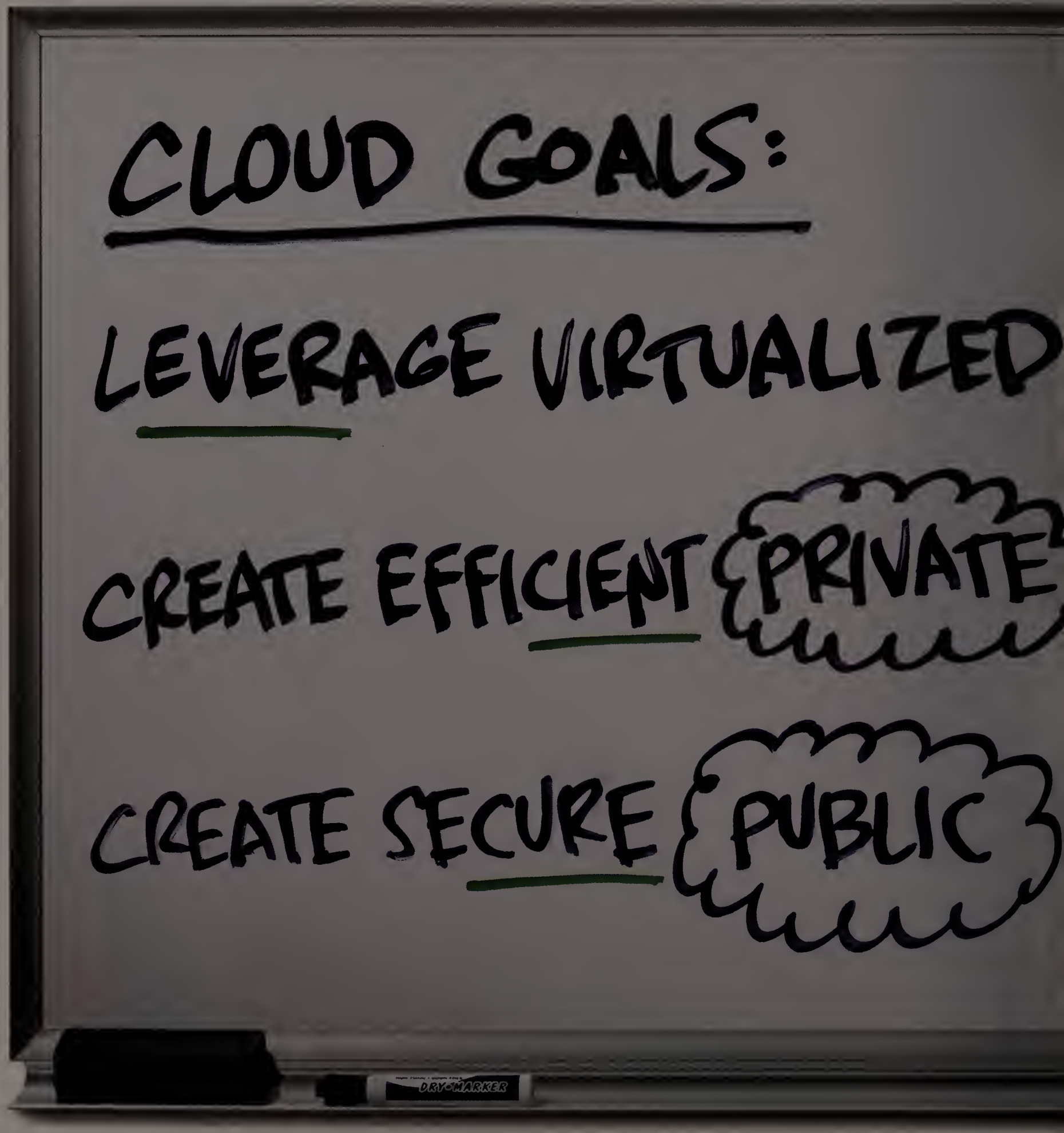

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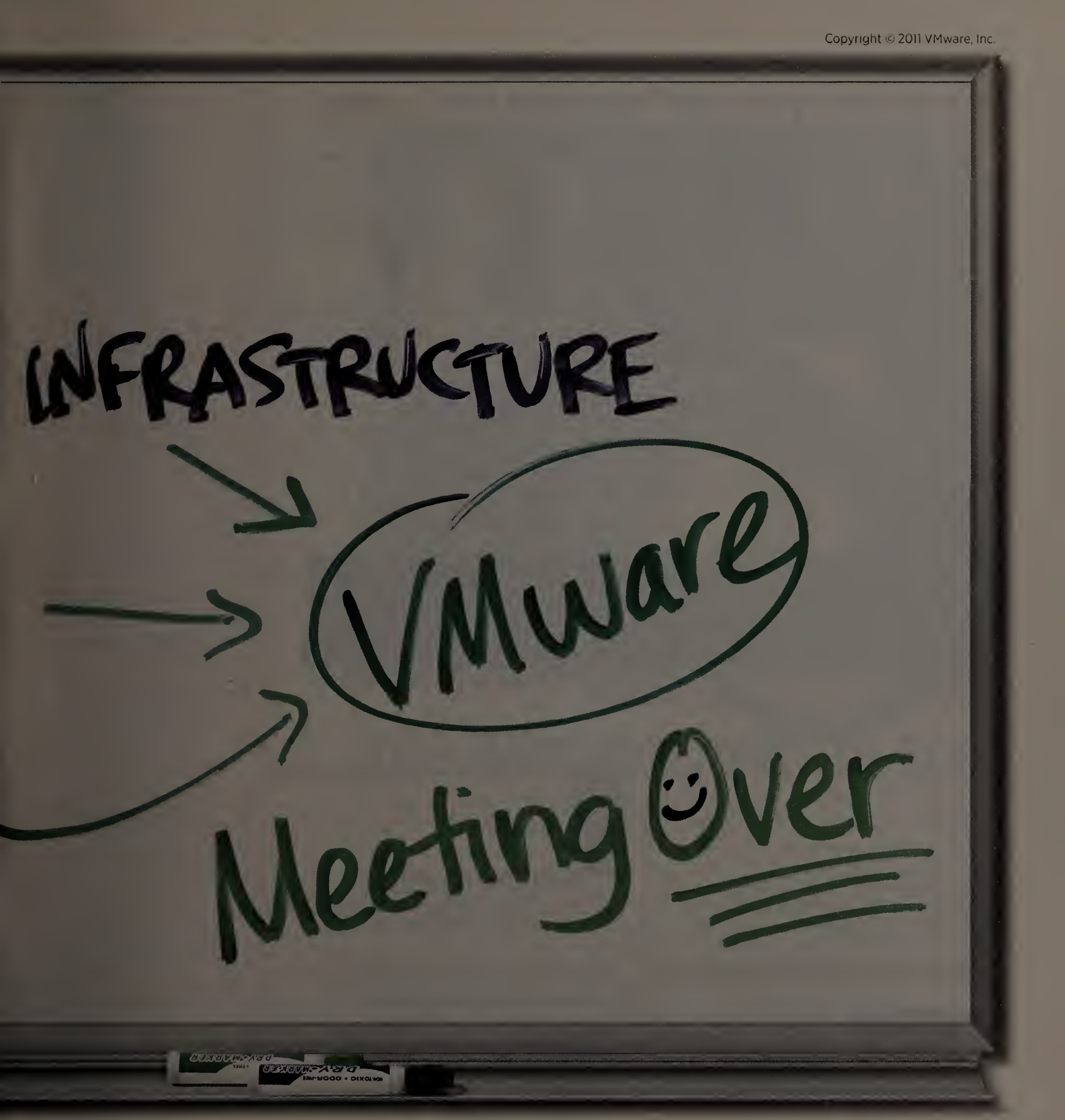

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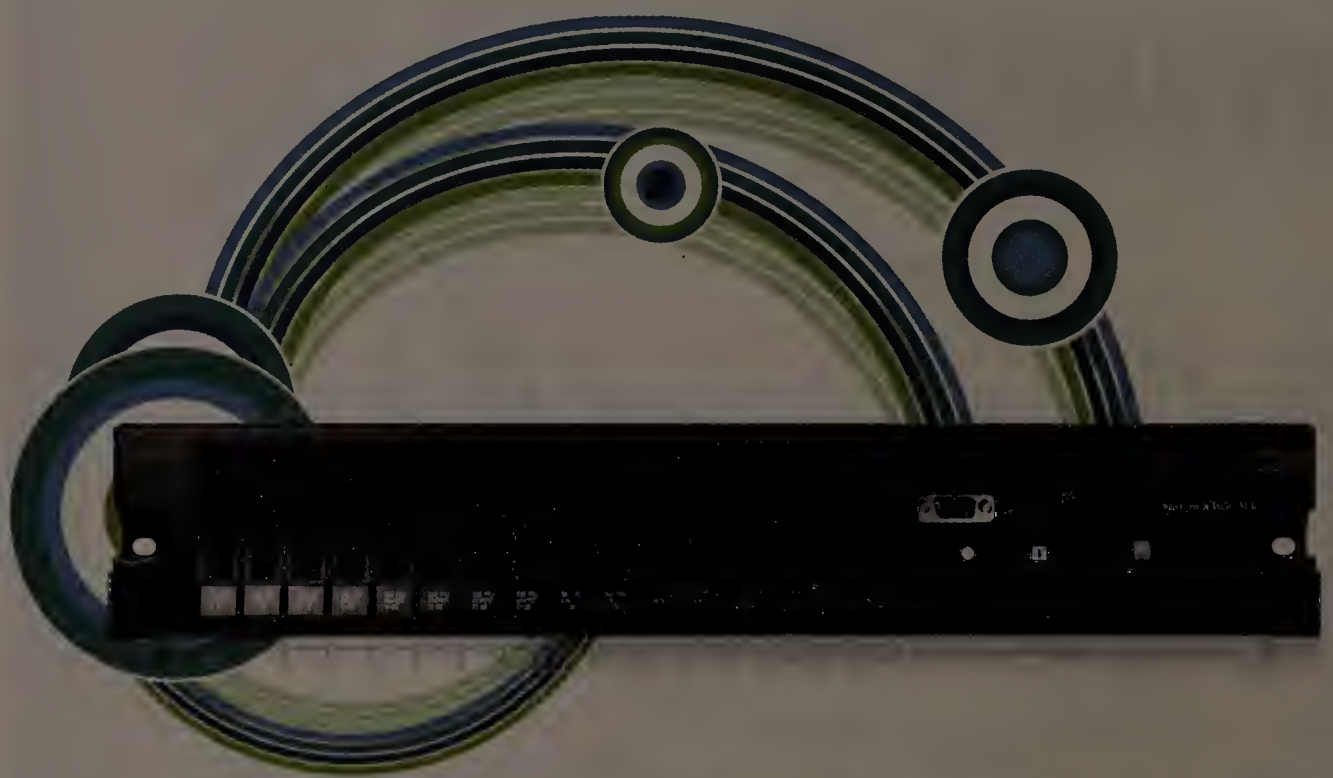

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[1]TBR 2Q11 x86-Based Servers: Corporate IT Buying Behavior & Customer Satisfaction Study, August 2011.
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IT's Winners and Losers

12 These days, IT jobs are increasingly found outside the IT shop, embedded in other departments, where business-savvy IT pros work alongside tech-savvy business people.

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20 Rapid-fire change makes it hard for IT pros to plan their careers. We asked four IT leaders about their current hiring needs and the "dream" résumés of candidates who could fill those positions.

Job Quest 2012

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OPINIONS | **19 Thornton May** sees an evolving world of IT work, where your potential to create value trumps what you've done and what you've learned. | **28** The ability to connect business and technical people will always be the most valuable of IT skills, says **Paul Glen**.

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IT CAREERS

IT Jobs Up, Skilled Immigrants Act Stalls

A **U.S. GOVERNMENT** report showing that hiring is up had some good news for IT workers: The tech industry added about 7,100 jobs in November, an increase of 0.17% from the previous month.

At the same time, Sen. Chuck Grassley (R-Iowa) moved to block legislation that would eliminate per-country caps on employer-sponsored green cards.

According to U.S. Bureau of Labor Statistics data analyzed by the industry group TechServe Alliance, the overall employment number for the tech industry reached almost 4.068 million last month, representing a year-over-year gain of 2.1%. The total is close to the all-time high of 4.088 million reached in June 2008, according to TechServe.

IT pay might be seeing gains as well, though the data supporting that is more anecdotal.

The TechServe Alliance total considers only high-tech industry workers; it might not account for someone working in IT at, say, a food manufacturer.

Mark Roberts, CEO of the alliance, said his member firms are seeing strong IT demand. "I remain very bullish going into 2012," he said.

Meanwhile, Grassley said he is blocking Senate action on the so-called Fairness for High-Skilled Immigrants Act because "it does nothing to better protect Americans." The bill had sailed through the U.S. House in late November on a 389-15 vote.

Grassley didn't say what changes he's seeking, but he placed the bill on hold, putting it into a procedural limbo that could sink it.

– Patrick Thibodeau

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INTERNET IDENTITY

Web 'Handles' Vs. Phone Numbers

Forget phone numbers and email addresses; the era of the Internet "handle" is emerging.

Instead of having to remember someone's phone number or email address, in just a few years we might be able to find an individual over the Internet via his or her handle, or nickname.

This would be similar to the way handles are used in instant messaging or on Skype, except that the handle would apply to all modes of getting in touch.

"People will no longer seek each other's phone numbers or email address[es] when establishing personal or working relationships," wrote Gartner analyst Adib Ghubril in a report on mobile predictions for 2012 and beyond. "Instead, they will ask each other, 'What's your handle?' "

Handles could have a huge advantage, Ghubril said. They may remain unchanged for life, or at least for a long time.

To use the handle format, an individual would need a personal Web page that could be accessed via his or her handle. On that Web page, the user would store phone numbers and email addresses, making sure to keep them up to date.

Of course, such a system would require a new generation of contact-management applications designed to work in this way.

– MATT HAMBLEN

BETWEEN THE LINES
By John Klossner

OPERATING SYSTEMS

PC Users Unlikely to Embrace Windows 8

RESEARCH FIRM IDC expects to see few Windows 8 upgrades on desktops and laptops, and it even predicts that users of conventional PCs won't show much interest in Microsoft's upcoming operating system.

Microsoft is facing a tough sell with the new operating system, IDC said, because it's trying to span two worlds by offering one platform for tablets and conventional PCs.

"Windows 8 will be largely irrelevant to the users of traditional PCs," said IDC. "We expect effectively no upgrade activity from Windows 7 to Windows 8 in that form factor."

Explaining the dour forecast, IDC analyst Al Gillen said, "Customers will be asking, 'What value does Windows 8 bring to my desktops and laptops?' And the only real value I can see is it provides access to the Windows app store."

Microsoft first confirmed in August that Windows 8 will feature access to a store; the store will open when the Windows 8 beta ships.

Gillen said that application compatibility issues, and the recent flurry of enterprise adoptions of Windows 7, will also hamper Windows 8 acceptance on PCs.

Gartner analyst Michael Silver agrees that Windows 8 will be a nonstarter in most enterprises; he has been quoted several times as saying "migration fatigue" is the biggest culprit. "After all the work on Windows 7 deployment, organizations will think twice about deploying [Windows 8]," Silver said in September. "They're looking for a little respite."

Windows 7 has indeed been aggressively adopted. The most recent figures from Microsoft show that the company had sold 450 million Windows 7 licenses as of September 2011, up from 240 million in October 2010.

Gillen was more optimistic about Windows 8 on tablets, but he said adoption depends on Microsoft's ability to convince developers to create new apps or rework existing Windows software for 8's Metro interface.

– Gregg Keizer

Micro Burst

Enterprises are projected to spend

$6.4B

on Facebook- and Twitter-like social media tools in 2016, up from $600 million in 2010.

SOURCE: FORRESTER RESEARCH INC.

MOBILE & WIRELESS

Verizon to Pay $3.6B for Mobile Spectrum

Verizon Wireless has agreed to pay $3.6 billion to buy licenses for mobile spectrum covering 259 million U.S. residents from SpectrumCo, a joint venture of three cable providers.

The SpectrumCo partners – Comcast, Time Warner and Bright House Networks – paid $2.4 billion for 137 Advanced Wireless Services licenses auctioned by the Federal Communications Commission in 2006. They're selling 122 of those AWS licenses to Verizon, with Comcast receiving $2.3 billion, Time Warner $1.1 billion and Bright House $189 million. Each company's take reflects its ownership stake in SpectrumCo.

Most of SpectrumCo's licenses have gone unused, and the National Association of Broadcasters has criticized the three partners for hoarding unused wireless capacity at a time when the FCC and mobile carriers are asking TV stations to give up some of their spectrum.

The deal, which is subject to FCC approval, will allow Verizon to offer better 4G services, said Dan Mead, president and CEO of Verizon Wireless, in a statement. "Spectrum is the raw material on which wireless networks are built, and buying the AWS spectrum now solidifies our network leadership into the future."

– GRANT GROSS, IDG NEWS SERVICE

'Server Huggers' Slow Cloud Adoption

Many IT execs are said to fear that a move to cloud would cause them to lose status. By Patrick Thibodeau

CHIPITA AMERICA may be as close to a serverless company as one can find today.

Its ERP, EDI and BI systems, Office and Exchange applications and file servers are all hosted in the cloud.

About six years ago, when many IT managers were debating the merits of Nicholas Carr's book *Does IT Matter?*, Chipita CIO Scott Martin was moving the Tulsa, Okla.-based snack food maker's email to service provider CenterBeam's cloud-hosted platform.

Chipita, a midsize, privately held business whose product lines include Old London Melba Toast and New York Style bagel and pita chips, has since moved the rest of its core systems to the cloud.

Martin reasoned that managing internal systems doesn't provide a competitive advantage to Chipita, and that his time would be better spent focusing on business needs.

"The real difference that IT leaders [can make] is being able to leverage information to create competitive advantage in the marketplace," Martin said.

Six years later, Chipita is still a pioneer in cloud adoption, and Martin still has to defend the approach in front of his peers.

"I feel like a lot of CIOs are in the process of a kind of empire-building," said Martin.

An IT empire-builder, he said, believes that maintaining in-house services helps justify his importance to an employer. Such beliefs are "really irrational and not in the best interests of the company," Martin added.

Forrester Research analyst James Staten called Chipita forward-thinking at a time when IT executives at many companies, particularly large ones, are "server huggers" who resist cloud deployments. Such IT leaders, he said, "have significant concerns about their ongoing value to the company if they don't run [IT systems] themselves."

Staten noted that many CEOs "don't know anything about technology, so their trusted adviser is the guy trying to protect his job."

Michael Barr, chair of the business psychology department at The Chicago School of Professional Psychology, agreed that fear of losing control is one reason an IT executive may shun a move to the cloud.

He added that IT executives also fear their status would change due to a perception that someone managing vendors has a lower rank than someone managing direct reports.

Martin, however, argues that by eliminating IT tasks "that are becoming commodities," CIOs can focus on being more productive. "For us, that's increasing our sales and decreasing our costs — two things that make manufacturing companies more money."

With the move to the cloud, Chipita's IT operation can also focus on improving the company's sales tools, and on finding new ways to integrate customer information, he added.

Martin said that, in many ways, he feels he has more control and protection over his systems.

The IT operation can control the firewall, for instance, while he can work with the services vendor to ensure the system is secure. "I believe that these cloud partners really have better security in place than what you can do internally," said Martin.

Martin said he routinely re-evaluates Chipita's relationship with CenterBeam and keeps an eye on an ever-changing cloud market. He can end a contract in 30 days.

His contract limits price increases to the consumer price index, he added. "Our risk is if the market changes and those services become cheaper," said Martin, but that has not been an issue thus far. ◆

> "I feel like a lot of CIOs are in the process of a kind of **empire-building.**
>
> CIO, CHIPITA AMERICA

THINKSTOCK IMAGES

Deal Means More SAP Cloud Changes

If his company becomes part of SAP in a $3.4B deal, SuccessFactors CEO Lars Dalgaard will lead the combined firm into the cloud. By Chris Kanaracus

IF ITS $3.4 BILLION BID to buy SuccessFactors is successful, SAP could finally stabilize its cloud computing strategy — which has so far been mostly ineffectual.

The agreement to acquire SuccessFactors, a provider of cloud-based human resources applications, was announced earlier this month. SAP expects it will close in early 2012.

In recent years, SAP hasn't been able to settle on a cloud strategy. The application vendor's cloud-based Business ByDesign ERP suite was pulled back in 2008 and reworked. The much-hyped offering was finally released this year. SAP claimed to have 650 Business ByDesign customers in October and projected reaching 1,000 by year's end.

Along with the ERP services, SAP is developing a series of on-demand applications aimed at specific enterprise functions, some of which appear to significantly overlap with SuccessFactors products.

Analysts said the combined product lines will present a major challenge to SuccessFactors CEO Lars Dalgaard, who's been tapped to lead SAP's overall cloud business once the deal closes. In a statement, SAP said it expects the combined firm "will establish an advanced end-to-end offering of cloud and on-premises solutions for managing all relevant business processes."

"It's a big job," said Ray Wang, an analyst at Constellation Research. "[But] Lars comes with cloud DNA. Before, [SAP] executives were bridging the old world with the new world. This should help a lot."

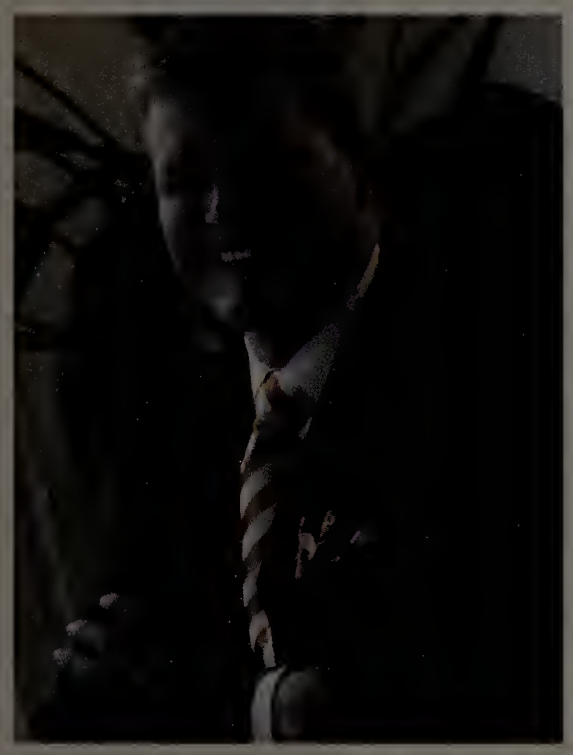
"There has been a burgeoning number of platforms [at SAP]," added China Martens, an analyst at Forrester Research. "I think they need to start rationalizing, or it won't all hang together."

Martens said SAP's decision on whether to actively sell Business ByDesign, Career OnDemand and other new SAP products or to make SuccessFactors software the focal point should prove very interesting.

In an interview, SAP co-CEO Bill McDermott called the addition of Dalgaard an "adrenaline shot" for SAP's cloud business.

"We think Lars is the best leader in the [cloud] business — by a lot. When Lars gets in there, he'll see what he likes and what he doesn't like, and he'll make the calls," McDermott said.

Wang said that while he agrees that Dalgaard and his team will bring significant cloud know-how to SAP, that knowledge will have to be applied and shared in a much larger and more complex organization.



SuccessFactors CEO Lars Dalgaard will take over SAP's cloud computing business once the $3.4 billion deal to buy his firm closes.

Wang said SuccessFactors' ability to win and then successfully complete major projects like a 400,000-seat installation at Siemens helped sway SAP's decision to pay $40 per share for the company, a 50% premium over its closing price when the agreement was reached.

Ironically, the Siemens deal is "one of those projects where they successfully blocked out SAP," Wang said.

Whether SAP will face a counteroffer for SuccessFactors from the likes of archrival Oracle remains an open question, analysts said. While not unthinkable, it may be unlikely, because Oracle has made HR software a centerpiece of its new Fusion Applications, Martens said, noting that an Oracle bid for SuccessFactors could therefore send confusing signals to the market. ◆

Kanaracus *is a reporter for the IDG News Service.*
Elizabeth Heichler *of the IDG News Service and* **Mike Simons** *of* Computerworld UK *contributed to this story.*

When Lars gets in there, he'll see what he likes and what he doesn't like, and **he'll make the calls.** — CO-CEO, SAP

PHOTO COURTESY OF SAP AG

THE Grill

Doug Cutting

Hadoop's creator discusses how the technology is making its presence felt industrywide.

The most interesting thing people don't know about you: One summer I worked in a salmon cannery 14 hours a day while camping in a swamp.

Favorite technology: The bicycle derailleur.

Favorite nonwork pastime: Walking, cycling, skiing or swimming with friends.

Favorite vice: It's a tie between an espresso at 9 a.m. and a beer at 5 p.m.

Four people you'd invite to dinner together: Thomas Pynchon (author), Bootsy Collins (musician), John Muir (naturalist) and my wife.

Best movie ever: *Once Upon a Time in the West* (Sergio Leone, 1968).

DOUG CUTTING, *creator of the open-source Hadoop framework that allows enterprises to store and analyze petabytes of unstructured data, led the team that built one of the world's largest Hadoop clusters while he was at Yahoo. Formerly an engineer at Excite, Apple and Xerox PARC, Cutting also developed Lucene and Nutch, two open-source search engine technologies now being managed by the Apache Foundation. Cutting is now an architect at Cloudera, which sells and supports a commercial version of Hadoop. Here he talks about the reasons for the surging enterprise interest in Hadoop.*

How would you describe Hadoop to a CIO or a CFO? Why should enterprises care about it? At a really simple level, it lets you affordably save and process vastly more data than you could before. With more data and the ability to process it, companies can see more, they can learn more, they can do more. [With Hadoop] you can start to do

Continued on page 10

Thinking about migrating to System z? You're in good company.

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ibm.com/facts

> **Hadoop is a fairly crude tool,** but it does let you really use thousands of processors at once running over all of your data in a very direct way.

Continued from page 8

all sorts of analyses that just weren't practical before. You can start to look at patterns over years, over seasons, across demographics. You have enough data to fill in patterns and make predictions and decide, "How should we price things?" and "What should we be selling now?" and "How should we advertise?" It is not only about having data for longer periods, but also richer data about any given period.

What are Hive and Pig? Hive gives you [a way] to query data that is stored in Hadoop. A lot of people are used to using SQL and so, for some applications, it's a very useful tool. Pig is a different language. It is not SQL. It is an imperative data flow language. It is an alternate way to do higher-level programming of Hadoop clusters. There is also HBase, if you want to have real-time [analysis] as opposed to batch. There is a whole ecosystem of projects that have grown up around Hadoop and that are continuing to grow. Hadoop is the kernel of a distributed operating system, and all the other components around the kernel are now arriving on the stage.

Why do you think there's so much interest in Hadoop right now? It is a relatively new technology. People are discovering just how useful it is. I think it is still in a period of growth where people are finding more and more uses for it. To some degree, software has lagged hardware for some years, and now we are starting to catch up. We've got software that lets companies really exploit the hardware they can afford.

What is it about relational database technologies that makes them unsuitable for some of the tasks that Hadoop is used for? Some of it is technological challenges. If you want to write a SQL query that has a "join over tables" that are petabytes [in size] — nobody knows how to do that. The standard way you do things in a database tops out at a certain level. [Relational databases] weren't designed to support distributed parallelism, to the degree that people now find affordable. You can buy a Hadoop-based solution for a 10th of the price [of conventional relational database technology]. So there is the affordability. Hadoop is a fairly crude tool, but it does let you really use thousands of processors at once running over all of your data in a very direct way.

What are enterprises using Hadoop for? Well, we see a lot of different things, industry by industry. In the financial industry, people are looking at fraud detection, credit card companies are looking to see which transactions are fraudulent, banks are looking at credit worthiness — deciding if they should give someone a loan or not. Retailers are looking at long-term trends, analyzing promotions, analyzing inventory. The intelligence community uses this a lot for analyzing intelligence.

Are those users replacing relational databases, or just supplementing them? They are augmenting and not replacing. There are a lot of things I don't think Hadoop is ever going to replace, things like doing payroll, the real nuts-and-bolts things that people have been using relational databases for forever. It's not really a sweet spot for Hadoop.

Microsoft, Oracle, IBM and other big vendors have all begun doing things with Hadoop these days. What do you think about that trend? It's a validation that this is real, that this is a real need that people have. I think this is good news.

What advice would you give to enterprises considering Hadoop? I think they should identify a problem that, for whatever reason, they are not able to address currently, and do a sort of pilot. Build a cluster, evaluate that particular application and then see how much more affordable, how much better it is [on Hadoop]. I think you can do bakeoffs, at least for some initial applications. There is a real synergy when you get more data into a Hadoop cluster. Hadoop lets you get all of your data in one place so you can do an analysis of it together and combine it.

Where do you see Hadoop five years from now? It is going to start to be a real established part of IT infrastructure. Right now, these things from Oracle and Microsoft are experiments. I think they are trying to tinker with it. I think in five years those won't be experiments. [Hadoop] will be the incumbent.

My hope is to build something that is loosely coupled enough that it can evolve and change and we can replace component by component [so] there doesn't need to be a revolution again anytime soon.

– *Interview by* **Jaikumar Vijayan**

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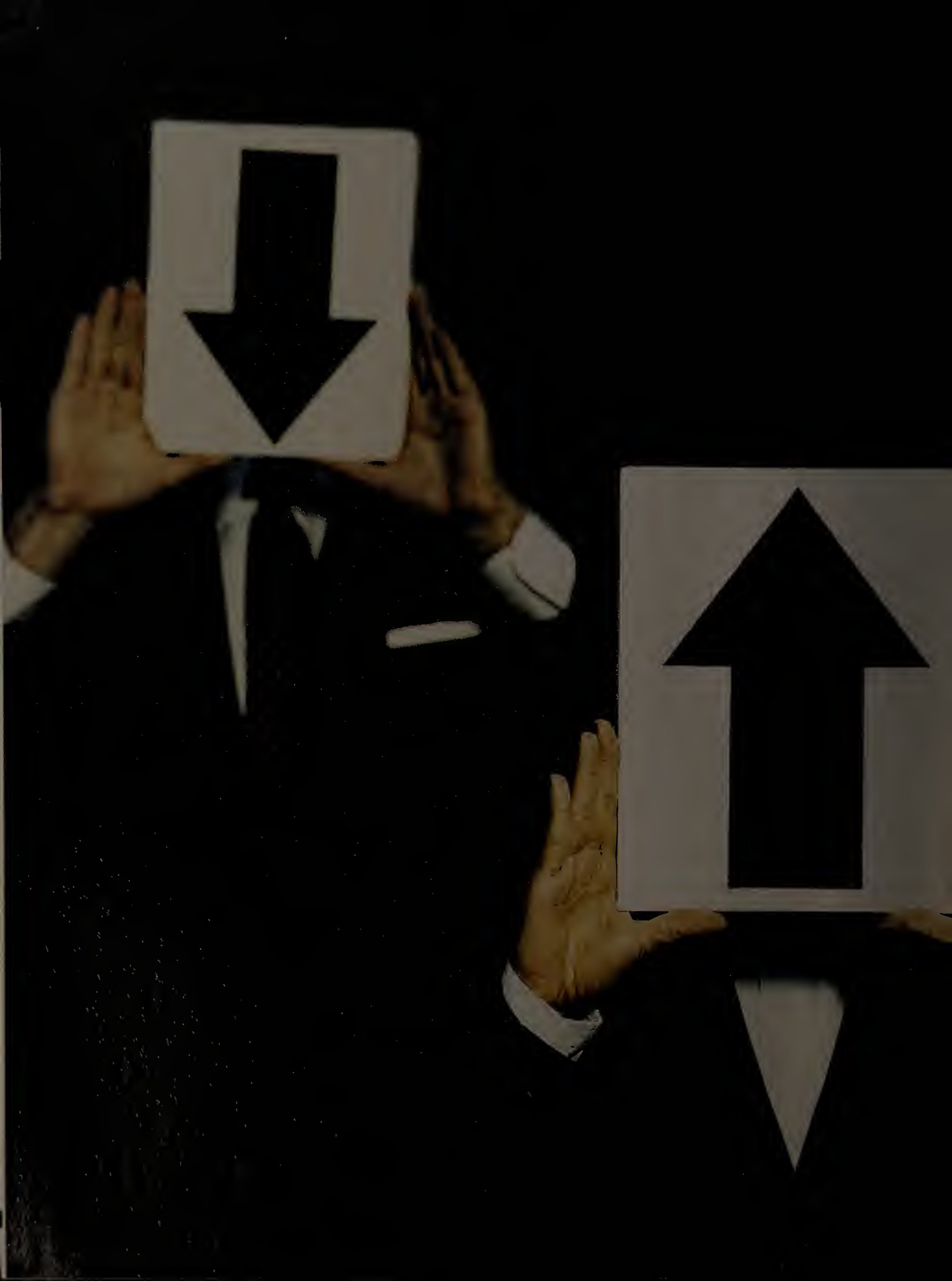

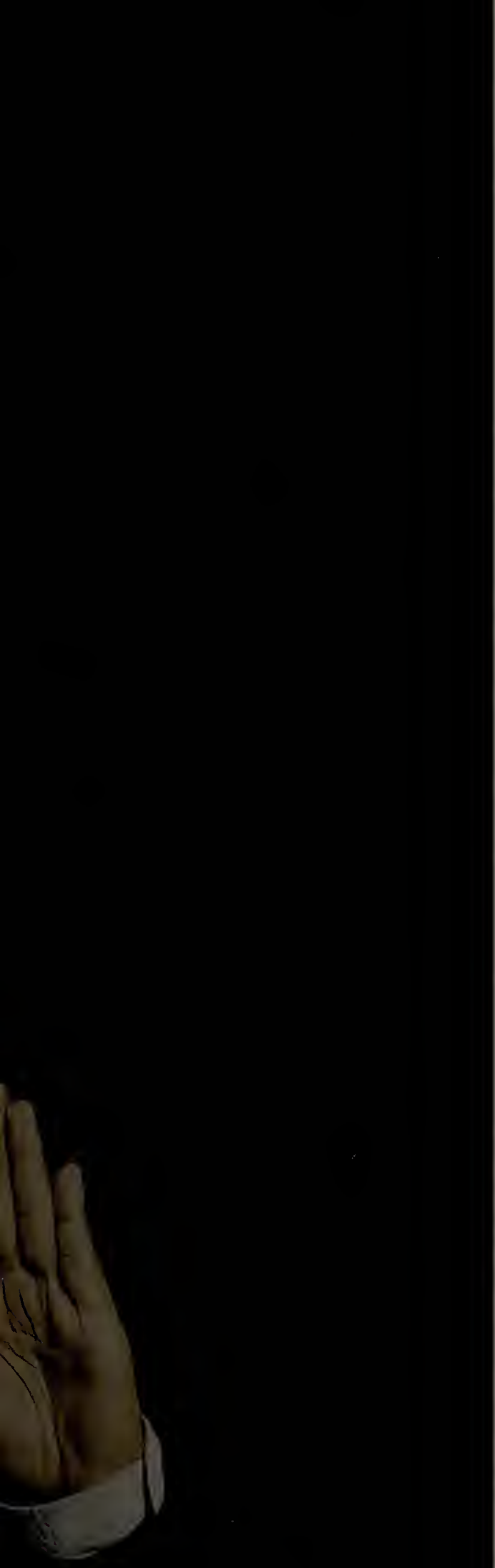

TOM LE GOFF / GETTY IMAGES

SPECIAL REPORT

JOB SEEKER'S TOOLKIT

IT'S WINNERS & LOSERS

In the intense new battle for IT jobs, those with multiple skills and broad knowledge of technologies will prevail. BY JULIA KING

SURE, THERE ARE STILL some Cobol systems on their last legs in the deep recesses of just about every large IT organization. But they are most assuredly on their way out — as are the programmers who coded them.

Also due to disappear, CIOs say, are virtually all other single-purpose IT job titles. Unix administrators? Forget them. Today's trend toward services-based software, mobile apps, cloud and consumer technologies means it is the breadth, not the depth, of knowledge and experience that wins — or keeps — the IT job.

Jeff Stachowski

WINNER

- *Information architect, user experience lead (consultant)*
- *Current assignment: American Airlines, Dallas*

AS AN INFORMATION ARCHITECT, Jeff Stachowski describes himself as both a translator and an ambassador.

"It's up to the information architect to work with the business or project manager and understand all of their requirements, then communicate to developers how to build what they want," he says.

In his current assignment as a user experience lead on a Web development project at American Airlines, Stachowski says, "Communication is my No. 1 strongest point."

Stachowski built his first Web page on a lark back in 1996. He and a graphic designer friend bought a modem, started checking out early Web pages built in straight HTML and were hooked. "It was the most amazing thing I ever saw in my life," he says.

Over the past 15 years, Stachowski, who is largely self-taught, has worked as a Web developer, information architect and user experience expert, on both a permanent and contract basis. He keeps his knowledge current by attending seminars, reading blogs and gaining on-the-job experience.

In the course of a day, Stachowski says, he works with programmers, business managers, art directors, designers and clients. "The information architect is like a real-life architect who figures out where to put the restrooms in a building or how much parking is needed and where it will go," he says. "You have to understand everything that is going on and organize the information in a logical manner," he explains. That includes figuring out where to place various buttons, tabs and the logical progression of links to other information.

"In my job, I don't need to know every trick in Photoshop, but I need to be able to communicate visually an idea. You also need an understanding of a browser's capabilities and how to store information in a database. I don't know how to do all of those things, but I must know if it's possible and what the requirements are," he says.

Because technology is changing constantly, Stachowski says anyone considering a job like his "has to be fluid and willing and able to change."

"With HTML3, everything is in tables, then HTML4 has Cascading Style Sheets, and now there is HTML5. It's not like it was with mainframe programmers who had a specialty. We don't have that luxury anymore. Systems change every four to five years and you either learn or you're always going to have that college kid coming out of school who knows all the new stuff," he says.

The payoff is steady work, even in a stumbling economy.

"There is absolutely a demand for my skills," he says, noting that he typically receives three to four calls and three to four emails a day from recruiters with jobs paying between $80,000 and $90,000 per year.

"I turned off my résumé on Dice and Monster," he says, referring to the popular job sites. But he also cautions that demand for his skills is cyclical.

"When the Internet bubble burst, guys like me were the first to go," he says, again adding, "You have to be fluid and willing and able to change."

– JULIA KING

And the job itself most likely won't be based in an IT department, but embedded in another business function such as sales, marketing, manufacturing, or supply chain, with the employee working alongside tech-savvy business colleagues.

"It's very unusual for us to have folks who only have one skill," says Norni Fjeldheim, CIO at Qualcomm in San Diego. "There are folks who I was forced to let go because they only wanted to retain one skill set. It's very career-limiting for people to be so specialized that they can't work in multiple environments and multiple technologies."

Unlike the traditional IT environment, which consisted of a portfolio or inventory of discrete applications and technologies tended by in-house technical specialists, the emerging environment is a tightly-woven fabric of on-premises and off-premises services offered to an increasingly mobile workforce and customer base on an ever-widening range of consumer devices, like smartphones and iPads.

These services are designed, assembled and continually enhanced by professionals with a broad knowledge of what the technologies can do and how they fit together, plus a deeper, more specialized knowledge of how they can be applied to a particular set of steps or tasks in an overall business process, such as order to cash or procure to pay. The ultimate goal is to build and assemble a combination of technical capabilities and business services that enables a company to distinguish itself from its competitors in terms of price, customer service, operational efficiency and other key business metrics.

Continued on page 16

Discussion Underway

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Enterprise Architects

At General Mills, a regular on *Computerworld*'s Best Places to Work in IT list, CIO Mike Martiny says he has organized these various capabilities into centers of excellence where the mission is to "stitch a number of technologies together to create a solution or capability that didn't exist before."

New job titles to emerge in the centers of excellence range from solutions developer to enterprise architect.

Mike Martiny

"Expertise in a technical area is an entry in the door," Martiny says. After that, General Mills will focus on building skills in four key domains: security, mobility, integrated digital marketing, and enterprise data and governance. "These are four areas that have a broad reach," he notes.

Martiny says the company hires people to pursue careers, not to do a job or assume a specific title. "We always have specific technology roles open," he says, "but we're looking for very specific skill sets for a period of time" — not forever. "That's why we look for people with continuous curiosity and a demonstrated history of continuous learning."

At Qualcomm, Fjeldheim considers the role of the enterprise architect to be among the most difficult to fill, especially by newcomers. That's why he is "cherry-picking" the best and brightest from his existing IT staff to transition into the role of enterprise architect. "IT still has architecture responsibility, but we're also charged with creating and deploying some of the new and innovative technologies coming in. That's not an easy role to fill from outside, partly because the role needs to understand the business and what the business is trying to accomplish," he says.

BI Analysts

A second key trend driving a shift in IT jobs is the proliferation of so-called big data — the massive volumes of bits and bytes collected by hundreds of thousands of transaction-based systems, sensors and RFID systems and, increasingly, social networks.

"IT's main role since the 1970s was to reduce inefficiencies in manual processes and create productivity gains through automation," notes Tim Sarvis, manager of IT plant operations and services at Eastman Chemical in Kingsport, Tenn. "The next big thing is trying to gain insight from all of this data — terabytes and terabytes of data. [We need] a way to model the data and put it in the hands of knowledge workers and decision-makers to make better, faster decisions," he says.

At Eastman, "we're structuring our talent pool around this mega-trend," adds Sarvis. "Data modelers, scrum masters, data architects, corporate architects are all titles that we'll be focusing on to beef up business intelligence."

Guy Peri, director of business intelligence at Procter & Gamble, says the consumer goods giant regards BI analysts as "trusted advisers" to the business. The company is investing heavily in both BI tools and BI analysts; Peri estimates that BI will account for as much as 20% of the company's IT organization and budget.

> **It's very career-limiting for people to be so specialized that they can't work in multiple environments and multiple technologies.**
>
> **NORM FJELDHEIM,** CIO, QUALCOMM

What's more, P&G is setting up BI universities to train its supply chain partners in the company's processes and analytics. "We want to drive continual BI at the operational level, right down to consumers," Peri says. P&G is also tracking "chatter" on various social networks, incorporating the customer feedback it gathers into its overall analytics-based business decisions.

Mobile App Developers

Another huge trend driving the current demand for very specific skills is the ever-increasing mobility of workers, customers, suppliers and partners, experts say. Simply stated, mobile applications have exploded. In 2010, sales of Apple iOS apps totaled nearly $1.8 billion. This year, global mobile app sales are projected to hit $4 billion, according to market researcher IHS.

Continued on page 18

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Yin Nawady

- *Director of analytics and process management*
- *Diamond Resorts International, North Las Vegas*

WINNER

HERE'S HOW Yin Nawady, a Harvard graduate with a degree in government and politics, describes what she does for a living: "I look at a lot of numbers and data all day long, and I draw conclusions and help the business to make their decisions using that information." She believes her career outlook is exceptionally bright.

"It's a self-serving statement, I know, but I think there is no limit to the opportunities," she says. "Companies need people who can connect the dots between data, technology and the business, and communicate those relationships."

Nawady began her career as a financial analyst, planning and managing budgets. "That's where I started to understand the guts of business," she says. From there, "I started applying analysis to forward thinking, which established the link between analytics and business."

Nawady moved through various management positions at online companies where she was continually embedded in technical teams. "Between the financial analysis experience and my experience in the online sector, I had the technical foundation I need for BI and analytics," she says.

Her current work focuses on constructing a 360-degree view of Diamond Resorts' customers; this involves analyzing both structured and unstructured data from social media, various online sites and customer information. But the biggest part of her job is communication, she says. "I spend a lot of time on external communication with stakeholders, with our chairman, CEO, our president and our CFO. A lot of that communication is to make sure that what we're doing is directly tied to the strategic direction of the company," she explains.

Skills needed for Nawady's role include "excellent analytical and critical thinking skills," she says. "A financial, marketing or strategic analyst role could be the foundation as long as it's digital. That's the new frontier."

Other required skills include a solid grasp of social media, Google analytics and online metrics, Nawady says. "You must also be familiar with data mining and databases. You don't need to be a SQL coder or developer. On the other hand, there are many technical concepts with regard to data mining that are incredibly helpful."

Whereas more technical IT professionals focus inward and drill down into data, Nawady equates her role to "looking at an inverted triangle where you're constantly looking upward and outward to all the different disciplines," and adds, "It's all about critical thinking."

– JULIA KING

Continued from page 16

But as Woodson Martin, senior vice president of employee success at Salesforce.com, sees it, mobility can't be separated from cloud computing and social networking.

"When I think of IT today and in the future, *social*, *mobile* and *cloud* are the three words that matter, whether you're in the consumer or enterprise space or a small or large business," Martin says.

"Customers want mobile applications that have a social networking component and that run in the cloud. So what I need are people who can embrace all of these things, and not in little pockets, either," he emphasizes. "I need everybody on my team to be oriented around all of these technologies."

Specifically, Martin says, "skill sets like HTML5, Ruby and Java allow us to design applications in a run-anywhere world, so they can be social, mobile and cloud," he says. As for titles, Martin says he's seeing fewer technology-specific titles and more titles like "technical staff member."

"The work done by members on these teams changes based on what the organization needs," he says. "They may be working on Web architecture one day and a mobile architecture the next day. What we're seeing are the traditional silos melting away as everyone is racing to produce social, mobile and cloud [applications]."

The need for individuals with knowledge of and experience using a wide range of technologies, coupled with a thorough understanding of how a business operates, is profoundly shifting IT's overall role in the enterprise, according to several veteran CIOs and industry watchers.

Rather than acting as implementers of technologies that can make the business run cheaper and faster, IT staffers are moving into leadership and innovation roles, informing and advising executive management about how technology can, for example, help set prices and mix product offerings to improve profits or market share.

"IT is leading the business, especially from an enterprise perspective," says Doug Beebe, who recently moved from an executive role in enterprise IT to a financial strategy and technology executive position at Toyota Motor Sales.

Doug Beebe

"Most business divisions are very much siloed. They've got a set of things they need to do on a daily basis and they aren't afforded the opportunity to look across the organization," Beebe notes. "When IT understands the [business] vision, it can recommend things that technology can do to fulfill that vision."

At Chicago-based Kraft Foods, the IT function is centralized, but CIO Mark Dajani has purposely embedded his staffers into business units so they can thoroughly understand the company's mission and drive results.

"I don't want IT to influence, but to lead the business," Dajani says. "IT is about driving business results and ownership of business results." ◆

THORNTON A. MAY

Sustaining Your Career During Unsettled Times

> In the evolving world of work, what you can do and what value you can create is where the action is.

SUSTAINABILITY, or creating economic prosperity without wreaking ecological havoc, is very much on the minds of executives at big brand companies like Coca-Cola, American Greetings and UPS. Career sustainability, or lifting your personal brand via consistently delivered, measurable enterprise value while maintaining some semblance of work-life balance, is top of mind for the millions of underappreciated IT professionals today. The world of IT work is in the early stages of fundamental change.

Ongoing research at the IT Leadership Academy is teasing out a framework for understanding the right kind of leader for the right kind of technology. Despite the tragically out-of-step musings of certain career coaches, largely cosmetic changes like adjusting the font on your résumé, adding a certification or two, or rephrasing the personal objectives you list in your cover letter will *not* cut it in the new world of work. This is not a time for tweaking; this is a time for transformation.

IT work requires a massive rethinking. In a series of international workshops, we asked a large and diverse group of senior IT executives three questions: What careers did they dream of when they were children? Could they ever envision IT being the kind of job a child would dream of? And what was the biggest surprise or memory they could recall from the first 90 days in their current jobs? As expected, no one had dreamed of becoming a CIO as a 10-year-old. And everyone was understandably skeptical about IT professional ever replacing firefighter, cowboy, ballerina, astronaut or athlete as a career aspiration. But what surprised us was that not one of the memories the IT execs could recall from their first 90 days on the job was pleasurable.

Gone are the days when it was enough to be a plumber, a mechanic, a project manager, a digital baby sitter for a tragically technology-illiterate senior management team, or a janitor who cleans up data messes. At the IT Leadership Academy, we have forensically analyzed "what gets people fired" in today's world of IT work. At the top of the IT food chain, you can do all the traditional things right and still end up in the career chipper. IT leaders prospering in the new world of work exhibit three core traits, which form what we call the new ERP: Educate (self-educate), Reach Out (connect to thought leaders) and Produce (deliver value).

While in Amsterdam, my colleague Martin Mocker shared the results of an MIT Center for Information Systems Research survey about how CIOs spend their time. Only 5% of a CIO's time is spent developing new IT management skills. Your organization isn't going to fund your career development. The fastest and most affordable path to self-education is relating to and reaching out to thought leaders who are moving rapidly down the learning curve of emerging technology sets.

In the evolving world of work, what you did and what you learned isn't the career decision point — what you *can* do and what value you *can* create is where the action is. You need to be perceived as a "value artist." Seth Godin, author of *Poke the Box*, recounts the story of Marcel Duchamp, who mischievously submitted a urinal to a 1917 art exhibit. Duchamp was an artist. The next person to work with a urinal was a plumber. The future belongs to IT professionals who are simultaneously data scientists and value artists. The right kind of IT leader is an entrepreneur, an innovator, a data scientist, a change agent, an educator and a diplomat. ◆

Thornton A. May is author of *The New Know: Innovation Powered by Analytics* and executive director of the IT Leadership Academy at Florida State College in Jacksonville. You can contact him at thorntonamay@aol.com.

Dream RÉSUMÉS

Four IT leaders describe their ideal job candidates, showcasing the skills and experience that are in demand. BY MARY BRANDEL

IT PROFESSIONALS have been through the wringer when it comes to managing their careers. They've had to keep up with ever-changing technology, endure the often painful aftermath of offshoring and outsourcing decisions, and learn new skills — including communication and other so-called soft skills — because of the blending of IT with the business. And those are just the biggest challenges they've faced over the years — and continue to face today.

So when it comes to professional development and fortifying their résumés, where do IT professionals start? Which certification to choose? Which project to angle for? Which soft skill to develop?

We spoke with four IT leaders about their current hiring needs and the "dream résumés" they envision of the perfect candidates for entry-level, midcareer and technology-careerist positions. (And be sure to check out our online feature "IT Workers' Top 4 Dream Employers" on *Computerworld.com*.)

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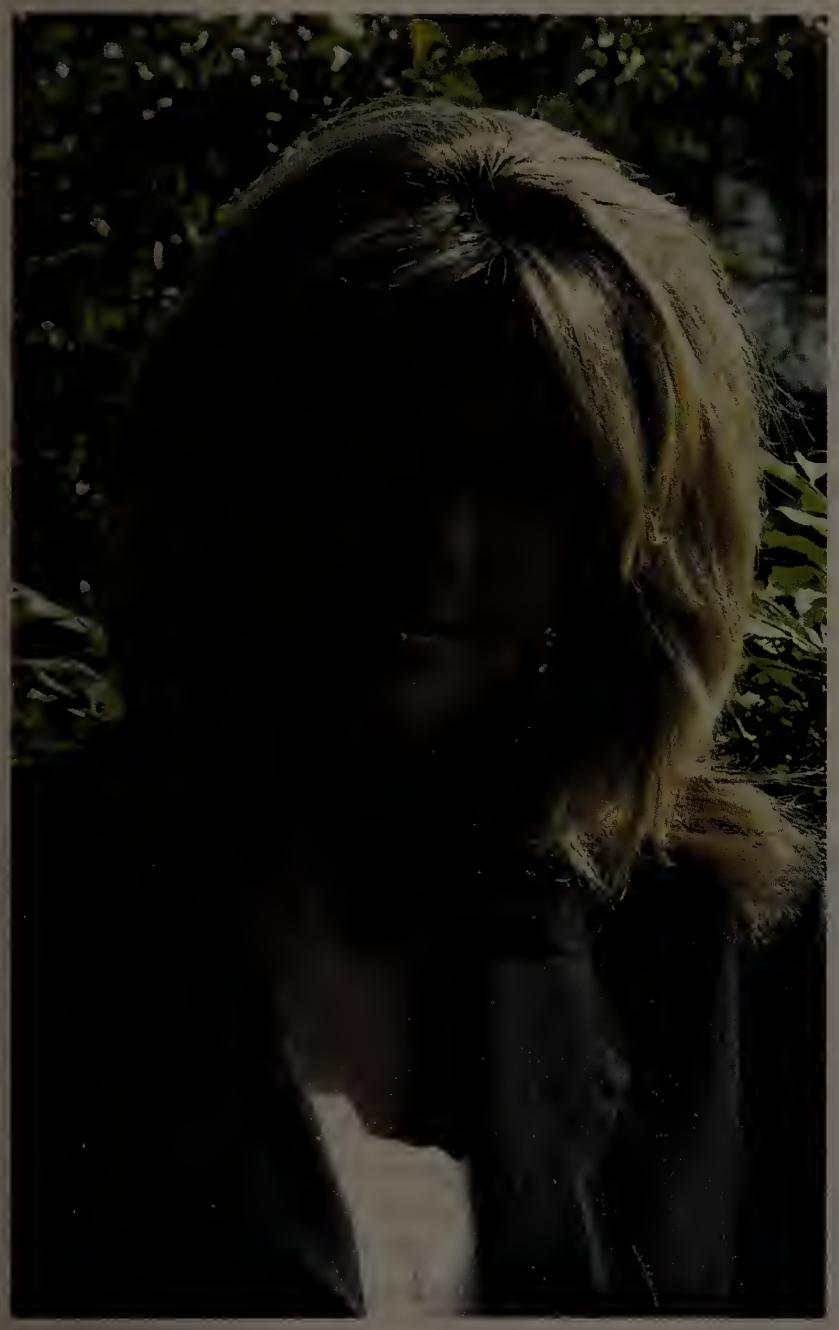


Jessica Carroll

Managing director, IT, U.S. Golf Association

IF YOU'RE LOOKING FOR A FUTURE IN IT at the U.S. Golf Association, a "phenomenal personality" is a deciding factor, says Jessica Carroll, managing director of IT at the USGA. Particularly at the entry level, "it's our No. 1 criteria," she says. "We're looking at that more than technology experience."

In fact, a candidate seeking a position as a technology support specialist can expect to engage in a test scenario during the second interview, in which the hiring team watches as the interviewee helps a user through a scripted problem. This not only helps the team determine whether the IT skills listed on the candidate's résumé are real; it also gives them a glimpse of the individual's people skills. "We want to see how you'd act if the phone rings and someone needs help setting up an Access database or creating a PowerPoint or navigating the Windows environment," Carroll says.

The USGA often needs to fill three entry-level types of positions: junior tech support specialist, network administrator and programmer. Here's what Carroll ideally seeks in each of those areas:

■ JUNIOR TECH SUPPORT SPECIALIST

Handle support phone calls, computer setup and one-to-one desk-based user support. Interact with network team on troubleshooting problems and reporting back to users. **"Dream" qualifications:**

1. A pleasant, energetic personality.
2. A true desire to help people and a willingness to go beyond the call of duty.
3. Basic IT skills and familiarity with Microsoft environments, either through previous on-the-job experience or college computer science studies.

■ NETWORK ADMINISTRATOR

Maintain backups, prepare documentation and complete hands-on setup and management of virtual or physical servers, as well as supporting the rest of the network team. **"Dream" qualifications:**

1. One to two years of networking experience, with a college degree preferred.
2. A pleasant personality.
3. Familiarity with Windows servers, Microsoft Active Directory, Enterprise Project Management, Internet Information Services and Web applications.

■ PROGRAMMER

Perform hands-on coding for various areas and initiatives, from accounting to communications. **"Dream" qualifications:**

1. Well-versed in Microsoft .Net and Active Server Pages.
2. Familiarity with the concept of Web services and XML.
3. Bonus: familiarity with mobile application development.

David Buzzell

CIO, The Sedona Group

DAVID BUZZELL, CIO AT THE SEDONA GROUP, a staffing firm, sees the job market heating up for IT professionals at the entry and middle levels (the $40,000-to-$70,000 salary range). He says two market forces are at play: a release of pent-up demand for staff as the recession eases, and a decrease in the supply of candidates as the number of students pursuing technology degrees declines. Buzzell's impressions are gleaned from Sedona's own IT needs and from the requests that come in to the firm's technical staffing unit.

"There are an increasing number of jobs for people with SQL, C# and help desk support skills, be it from a two- or four-year degree," Buzzell says. Enterprise project managers are also in high demand, he says, adding, "If they're certified, we would take as many as we can find."

No matter what the position, "communication skills are critical," Buzzell says. "Typically, when you've got a developer working on a project, you've got to bring in someone else to play the middleman to communicate with the business partner, so communication is really key."

At the entry level, Buzzell sees demand for help desk personnel, network techs, and Web designers and developers with skills in HTML, ASP.Net, C#, Visual Basic.Net, ColdFusion, JavaScript, C++, Oracle PL-SQL, SQL Server T-SQL and Visual Basic. Candidates should have good communication and customer service skills, experience with testing and troubleshooting, and familiarity with Windows 2000, XP Professional Home, Windows 7, Vista, Cisco, PCs, cables, routers and switches.

At the midlevel, Buzzell sees demand for staffers who have both business and IT expertise, can hit the ground running on new projects and can manage projects. Here are the midlevel job areas

for which Buzzell is seeing demand, as well as the ideal candidate's qualifications:

■ NETWORK ADMINISTRATOR

Work in a team environment to support a complex Cisco-based network, proactively administering, monitoring and analyzing network performance and using monitoring tools and alerts to provide 24/7 network availability. Responsible for following established standards and best practices. Must create and maintain up-to-date documentation of network design, operation and procedures.

"Dream" qualifications:

1. A firm understanding and working knowledge of an enterprise network environment, with a strong grasp of routing protocols, TCP/IP, DHCP, VPN and PIX firewall operations.

2. Experience with Cisco IOS routers, switches, PIX appliances and wireless infrastructure, as well as familiarity with TACLANE encryption technology.

■ TECHNICAL PROJECT MANAGER/ ENTERPRISE PROJECT MANAGER

Participates in the planning of new products and improvements for Microsoft Project Server, and then develops the plan and leads a team in executing that plan. Performs administrative procedures, such as setting up the project in the project management system, determining required artifacts, reviewing schedule and estimates with program manager and business partners, obtaining formal approvals, maintaining project metrics and ensuring project quality. Provides day-to-day work direction and assistance to a professional staff. Determines and secures resources needed to ensure successful project completion. **"Dream" qualifications:**

1. Communication skills.

2. Demonstrable experience managing large, multidivision and even international projects.

3. Project Management Institute certification.

4. Expert-level experience with Microsoft Project Server (2007/2010) or another project management system.

Buzzell is also seeing demand for tech-focused personnel who work under the hood dealing with integration issues, algorithms, security and networking software. In particular, he sees demand for people to fill this type of position:

■ ERP IMPLEMENTATION SPECIALIST/ERP DEVELOPER

This role will focus on implementing, enhancing or extending the ERP environment (including Oracle, Microsoft Dynamics, Great Plains and SAP systems) or creating custom integrations from the ERP system to the front-office website. May include tying in remote collection of data from tablets or Web-based systems to the ERP system, as companies work to make environments more seamless and get all the data into one location. **"Dream" qualifications:**

1. Recent work with ERP software and implementation of customer processes.

2. Strong communication and analytical skills for working closely with end users and business process owners.

3. Project management experience.

One of the questions I ask in interviews is, 'Why do you want to be a manager?' The right answer is, 'I'm passionate about helping people better themselves.'

DOUGLAS MENEFEE,
CIO, SCHUMACHER GROUP

Douglas Menefee

CIO, Schumacher Group

WITH 20% TO 30% ANNUAL GROWTH at Schumacher Group, demand for IT staff is high, says Douglas Menefee, CIO at the emergency medicine management company. Just this past year, the IT staff increased from 55 people to 92.

To fill entry-level tech support jobs, Menefee looks for people with a basic knowledge of technology and strong oral and written communication skills. "Most organizations would call this Level 1 support, but I view it as a 'concierge' of IT, as they need to guide and serve users," he says. He's also seeking entry-level developers with knowledge of Ruby on Rails, Java and the Salesforce.com environment.

Menefee says Schumacher has two types of jobs for midcareer IT professionals: technology- and management-track positions. When filling the latter, he says, "One of the questions I ask in interviews is, 'Why do you want to be a manager?' The right answer is, 'I'm passionate about helping people better themselves.' " He warns these candidates that they'll spend 10% to 15% of their time working on personnel-related issues.

In the technology track, Menefee says there's a need for business analysts and business solution analysts. Strong candidates would have five to 10 years of experience, good technology and communication skills, proven teamwork capabilities and subject-matter expertise, he says.

He sees a lot of demand for candidates to fill these positions:

■ APPLICATION SYSTEMS ANALYST III

Reviews, analyzes and evaluates business systems and user needs. Formulates systems to be in sync with business strategies. Writes a detailed description of user needs, program functions and steps required to develop or modify computer programs. Is familiar with relational database concepts and client/server concepts. Relies on some experience and judgment for planning and accomplishing goals.

"Dream" qualifications:

1. Bachelor's degree in MIS, computer science or related field.

2. Minimum of five years of IT experience.

3. Strong organizational and documentation skills.

4. Extensive experience with transition diagrams and process flowcharts using Microsoft Visio.

5. Experience with .Net, SQL Server and Visual Basic.

6. Strong skills in understanding and using standard application development design, reporting and project management tools.

7. Ability to perform objective analysis and re-engineering of business processes.

8. Healthcare and/or billing experience preferred.

9. Excellent oral and written communication skills and the ability to understand end-user needs.

■ BUSINESS INTELLIGENCE ETL DEVELOPER

Participates in data acquisition and transformation delivery and may provide oversight and technical checkpoints to enforce standards and quality of BI solutions. Researches new ETL-related technologies, tools and methodologies. May lead the design, development and testing activities for the data movement and transformation portions of BI projects. Responsible for collaborating with the IT support teams to ensure compliance with company guidelines and restrictions. Leads meetings to refine technical standards for technologies used within the data movement layer; reviews designs to ensure that those standards are met. **"Dream" qualifications:**

1. Bachelor's degree in computer science, information systems or a related field, or equivalent work experience.

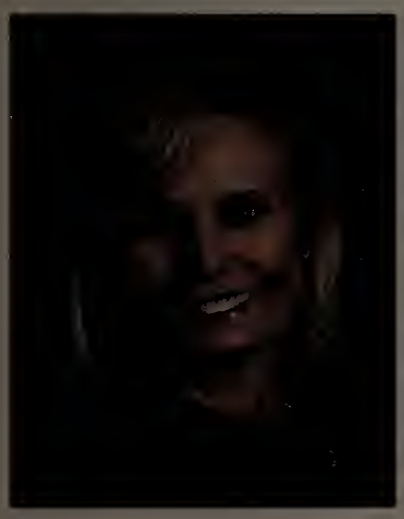
2. Five years' experience in IT applications development or related consulting work.

3. Two years in technical development and leadership roles on BI projects, with some experience with ETL tools and relational reporting tools, plus experience managing the time and activities of other people and groups.

4. Specific software skills: Microsoft SSIS, Informatica, AbInitio or similar ETL tool; Microsoft Reporting Services 2005; Business Objects/Crystal Reports, Cognos ReportNet/Impromptu and MicroStrategy for Relational Reporting.

5. Demonstrated experience managing successful projects.

6. Willingness to accept and navigate political situations to ensure the program continues to make progress.



Cathy Tompkins

CIO, Chesapeake Energy

CHESAPEAKE ENERGY is another company in rapid-growth mode, and CIO Cathy Tompkins is looking for IT professionals at all levels. "If we filled all open positions, we'd have well over 100 hires this year in IT," she says.

Tompkins knows what traits she wants in job candidates. One is cultural fit, which she assesses using a behavior-based interview process that relies on the theory that past actions predict future behavior. Others include stability, deep technology or functional expertise and experience at large companies.

Candidates also need to be focused on the business and its customers, not just IT efficiency and methodology. "We keep a constant focus on making this a successful oil and gas company so we don't lose sight of what we're here to do in the first place," Tompkins says. And they need to be flexible, decisive, opportunistic and innovative. New employees also meet with the CEO after 90 days on the job to describe their background, emphasizing the importance of communication skills.

A strong work ethic is also essential. "This is a 'get it done, no mountain we can't climb' place, and I don't think that's for everybody. So we spend time emphasizing that upfront," she says.

Here is a sampling of entry-level, midcareer and technology-path jobs at Chesapeake:

■ ASSOCIATE SECURITY ANALYST

Under direct supervision, performs procedures to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction. **"Dream" qualifications:**

1. Ability to preserve confidentiality and work with sensitive data.

2. An understanding of the implications of new information for problem-solving and decision-making.

3. A solid understanding of and some experience with security principles (including password management, identity management, virus scanning and intrusion detection).

■ SENIOR BUSINESS ANALYST

Formulates and defines systems scope and objectives through research and fact-finding combined with an expert understanding of business processes and industry practices. Devises or modifies procedures to solve complex problems. Crafts, conducts and participates in effective communication forums with external customers and internal IT staffers. **"Dream" qualifications:**

1. Active listening: Gives full attention to what other people say, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times. Listens with the goal of understanding, not with the aim of persuading others to accept alternate viewpoints.

2. Information ordering: Is able to combine pieces of information to form general rules or conclusions (includes the ability to find relationships among seemingly unrelated events).

3. Processing information: The ability to compile, categorize, calculate, tabulate, audit and verify data.

4. An understanding of design, implementation, maintenance, control, monitoring and administration of databases in applicable computing environment.

■ IT COORDINATOR (APPLICATIONS DEVELOPMENT)

Reviews, monitors and evaluates complex work in assigned areas of responsibility, and assists supervisor with daily administrative support for operational activities of a team of employees.
"Dream" qualifications:

1. Excellent collaboration, interpersonal and communication skills, with the ability to build productive relationships.

2. Ability to work and communicate effectively with co-workers and clients and other external contacts of all levels.

3. Experience leading a technical and/or management team.

4. Strong knowledge of object-oriented analysis and design and proven experience implementing the techniques in both n-tier client/server and Web application development environments.

5. Experience with security best practices in an enterprise applications development environment. ◆

Brandel *is a* Computerworld *contributing writer. You can contact her at marybrandel@verizon.net.*

JOB QUEST 2012

Recruiters and savvy job finders reveal their top six job-search strategies using Web 2.0 technologies. BY STACY COLLETT

IF YOU'RE SITTING in your office right now, take a glance at the co-worker on your left and then at the co-worker on your right. Chances are one of them is looking to leave the company. Or perhaps it's you.

Some 53% of IT workers are actively or passively searching for a new job right now, according to a *Computerworld* survey of 431 readers. What's more, 46% of the respondents say it's been five years or more since their last job search.

For those who are new to job hunting in a Web 2.0 world, the hiring landscape is nearly unrecognizable. For starters, a lot of employers have stopped advertising open positions because they are deluged with résumés, many of which come from unqualified candidates. Today, recruiters and HR professionals have a suite of digital tools at their fingertips that can, for example, identify the 10 best job

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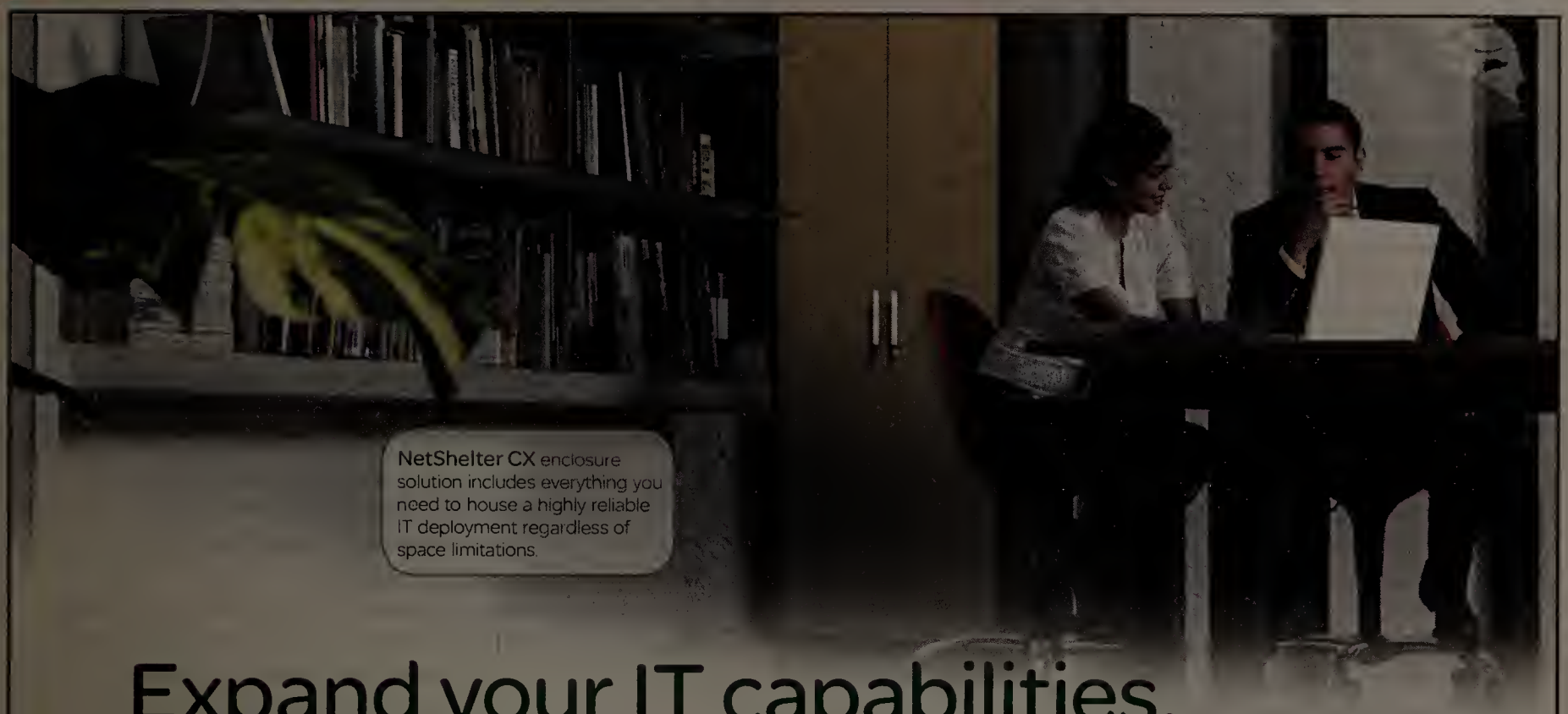

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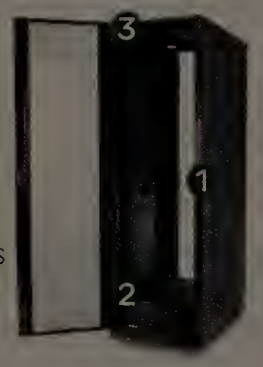

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candidates on a social networking site within seconds. The trick for job hunters, then, is to make themselves easy to find on these sites.

An IT executive in Raleigh, N.C., discovered the importance of this trick first-hand last spring, when he found himself out of work after 18 years with the same company.

"I sure had not been in the job-seeking mode for a long time, and I was surprised at the process of getting your accomplishments and responsibilities 'out there,' " says the executive, who recently turned 50. While he had established a LinkedIn profile when the site came into existence, he hadn't updated it in years, nor had he saved a copy of his old résumé. "I was starting from scratch," he says.

Recruiters agree that it's best to start looking for a new job while you are still employed and can build a robust network of contacts. Here, recruiters and savvy job finders reveal the top six must-have weapons in any job seeker's toolkit.

1 Your First Stop: LinkedIn

With more than 100 million registered users, LinkedIn is the world's de facto job board and is widely used by recruiters and job seekers alike.

"Nowadays, LinkedIn is your first interview, and it happens without you," says David E. Perry, managing partner of Ottawa-based recruiting firm Perry-Martel International and co-author of *Guerrilla Marketing for Job Hunters 3.0*. "A hiring manager or recruiter takes a look at your background [on your LinkedIn profile] and makes the decision as a go or a no-go."

Nowadays, LinkedIn is your first interview, and it happens without you.

DAVID E. PERRY, CO-AUTHOR, *GUERRILLA MARKETING FOR JOB HUNTERS 3.0*

The biggest problem with LinkedIn, he cautions, is that most job hunters don't know how to use it effectively. Many users, for instance, post their entire résumé on their LinkedIn profile instead of capturing a recruiter's interest with some key words and saving the "meat" for an in-person meeting. "Those key words will make your name pop up when recruiters are looking for someone with your title, skills or experience," says Perry.

IT job seekers can benefit from several new LinkedIn applications, such as SlideShare, which lets users browse and share presentations, and Creative Portfolio Display, which lets programmers, analysts and others showcase creative work on their LinkedIn profiles. "It allows you to differentiate yourself from everybody else," Perry says.

LinkedIn also offers a "Year in Review" app that lists all of the status changes, such as a new job, that your connections have made to their profiles in the past year. "You know these people. What better way to network than to follow up with them and find out what they did, how they did it, and if there are any leads you should know about," Perry says.

For job seekers who are targeting a specific company, LinkedIn has added a feature called Company Pages. By clicking the Statistics icon on a Company Page, or corporate profile, users can find out where departing employees found new jobs. This "networking with the newly departed," as Perry calls it, can give job seekers the inside scoop on what positions are available and what skills the IT department needs. "Imagine the power of having a conversation with an individual who worked in IT and understands first-hand what their three biggest challenges are. When you connect with an executive, you can [emphasize] the skills you have that can address those issues," Perry says.

2 Facebook: Not Just for Fun Anymore

While many job seekers regard LinkedIn as their professional website and Facebook as their friends-and-family hub, more recruiters are trolling Facebook to get a feel for prospective candidates', ahem, softer side, Perry says.

"As recruiters, we're not just looking for skills and experience, we're looking to understand the three-dimensional person," Perry explains. "We can tap into them on Facebook and understand their likes, dislikes, and interests — the music they listen to, photos they post, games they play. Facebook can give you a deeper understanding of 'the person.' "

Those that blend their professional and personal contacts need to be careful of the information they're posting and how it affects their brand image, says Coleen Byrne, former sales director at Yahoo and co-author of *The Web 2.0 Job Finder: Winning Social Media Strategies to Get the Job You Want*. For starters, keep your party photos on your camera, and avoid blogging or commenting about controversial topics. "The taboos are always going to be politics, religion, same-sex marriage — if you have very strong opinions, all of these things get a little bit dicey" with prospective employers, she says. Also, avoid abbreviations (OMG!) and typos, even on status updates. "At the end of the day, it all represents you, and people are going to make quick judgments," Byrne says.

The concept of combining the social with the professional caught Facebook's attention, too, and in August 2010 it launched BranchOut, an app that lets users create their own professional profile on Facebook and link their professional network. The app had more than 800,000 active users as of June 2011.

3 Show Your Talents on YouTube

International staffing firm Yoh Services fills a lot of positions at gaming companies, and it finds many content developers and 3D imaging artists through YouTube, says Tammy Browning, Yoh's West Coast senior vice president. "They build mini videos and post them [on YouTube]. About 80% of our jobs that we're filling [in gaming and 3D] are through YouTube," she explains. Microsoft is one of many tech companies that use the video-posting site to "discover" talented programmers. Two senior managers in Microsoft's gaming division, whom the company won't name, were reportedly discovered on YouTube as teenagers and recruited.

But the video site doesn't just benefit gamers, Browning adds. "Even software developers who can speak about their portfolio of projects or Web developers who can show the fresh, hot website they've designed should post on YouTube," she says. Prospective employers and talent seekers can not only see your work, but also glimpse your personality and communication style "to see if you're somebody who would fit in their world," she says.

4 Get Your Tweet On

Contingency recruiters, who get paid only if they fill a job, are in a daily race with their competitors to find the right candidates fast — sometimes in a matter of hours — so many of them tweet about job openings on Twitter.

"They're hoping someone in their network is going to say 'That's for me!' So more contingency firms are using Twitter, as are regular companies, to tweet their job openings," Perry says.

Tweet Grader (Tweet.Grader.com) lets job seekers search for their desired job titles to find out who is tweeting about those jobs. Tweeters can also join recruiters' job search groups and be alerted when new positions are posted.

5 Stalk Headhunters With TwitJobSearch.com

This free service from HubSpot lets job seekers search for their targeted job title to find out who has tweeted about a similar job that day. If you become a "follower" of a targeted recruiter, you'll receive tweets when new jobs are posted.

6 Social Network Overload? Try About.me

Once you establish multiple portfolios on Facebook, Twitter, LinkedIn and other networking sites, then the challenge becomes managing and monitoring all of those Web presences. How do you separate your personal life from your professional one? About.me can be the central point of those interactions by allowing users to connect all of their social networks in one place and present only the information that the user wants a particular contact to see — business or personal.

"I think About.me is going to be the centerpiece [of social networking] in the not-so-distant future, about six to nine months, for people who are very active with social networks and have a big challenge managing it all and pointing people in the right direction," Perry says.

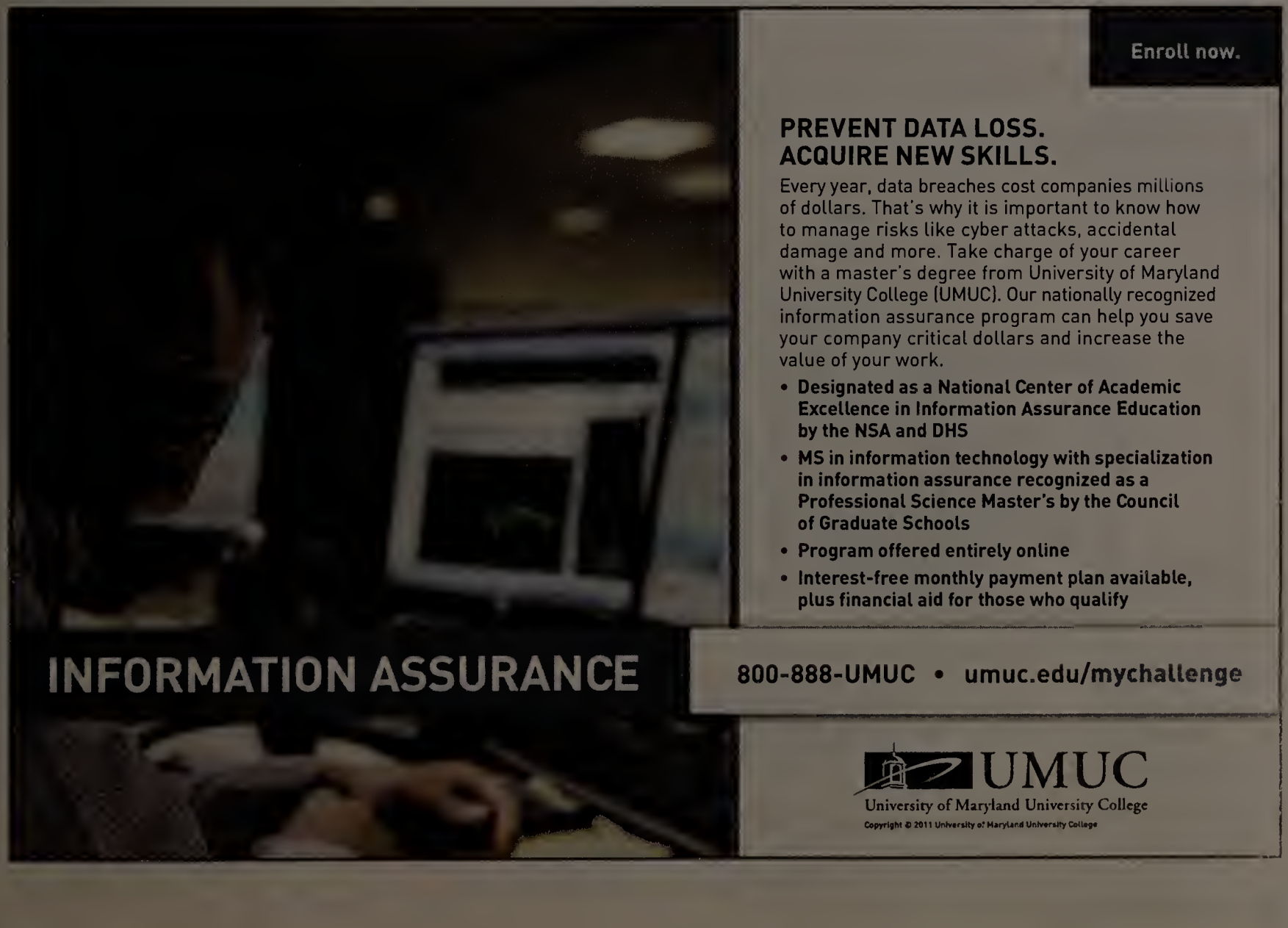
A Tool, Not a Solution

The 50-year-old out-of-work IT executive from Raleigh is now using several social networking tools to look for job leads, but he still believes he'll find his next job the old-fashioned way.

"I suspect how I find a job is not going to have a whole lot to do with my research on the Net," he says. "It's going to be an individual who knows I'm available because of what happened to my company. I've been getting together with many of them over the last seven months."

Recruiters warn that Web 2.0 isn't the silver bullet that will bring your job search to a successful conclusion, but it certainly is a valuable tool. "When you need a job, you should slow down and spend a day or two creating a profile that makes it easy for you to be found," Perry says. "It's more likely then that the jobs will come to you." ◆

Collett *is a* Computerworld *contributing writer. You can contact her at stcollett@aol.com.*



PAUL GLEN

Want to Own the Future? Build Rich Relationships

> The ability to connect business and technical people will always be the rarest and most valuable skill.

FOR MORE THAN 20 YEARS, I've been hearing complaints, concerns and panicked hysteria about the end of the IT career as we know it. Just below the surface, we all seem to think that we're about to get the ax. And that's because we persistently misunderstand what our business partners want most from us. We think they just need the best technician, but they don't.

What they need most, now and in the future, are technical people who can communicate and collaborate with nontechnical people. Regardless of their specialty, individuals who can work across the cultural divide between geeks and nongeeks will always be highly valued and in short supply.

My business partner and I have taken to referring to these folks as "The Magical People." Everyone knows who they are. They are the ones we in IT turn to when we really need business to understand our point of view. They are the ones business people turn to when they need jargon interpreted, or details distilled down to what's most important. With some sort of magical, inborn translation device, they build consensus, drive decisions and get results.

What makes these people magical?

Empathy: They are able to grasp not only what business people want and need, but how they feel. They can sense the emotional state of others and reflect that awareness back in ways that make others feel understood.

Flexible perspectives: They appreciate that no one holds the ultimate truth regarding a certain situation; they know that an issue can be validly viewed from many perspectives. And they can place themselves in other people's shoes, imagining the ideas, constraints and feelings that others must have.

Flexible communication: They adapt their style of communication to match the needs of each audience. They are able to make themselves understood by many different types of people.

Understanding: They use their flexible perspectives and empathy to understand what other people consider important. They can communicate what's important to both IT and the business in order to reconcile priorities and feelings.

So how do you become more magical? You need to change your perspective on what counts as work. Engineers usually think their work is creating technology. It is, but there's much more to it. Your job is to apply your knowledge to improve the condition of your organization and users. If you want to figure out what will be most helpful, you need to forge collaborative relationships with those you want to help.

You can start building those relationships by recognizing that nontechnical people don't think the same way we do. The reason our partnerships flounder is not because nongeeks don't understand technology, but because we each see the world in radically different ways. So we need to set aside judgments in order to be more empathetic and loosen up our idea that there is only one right way to approach a problem.

So if you want to secure your career, focus on becoming more magical rather than more technical. Technologies come and go, but the ability to connect business and technical people will always be the rarest and most valuable skill you can offer. We geeks have precious insight into what's possible and feasible; business people are responsible for knowing what's important to the business. Geeks and nongeeks will have to work together to find the intersection of "what's possible" and "what's important," so that together we can determine "what's next." ◆

Paul Glen is CEO of Leading Geeks, an education and consulting firm devoted to improving collaboration between technical and nontechnical groups and people. You can contact him at info@leadinggeeks.com.

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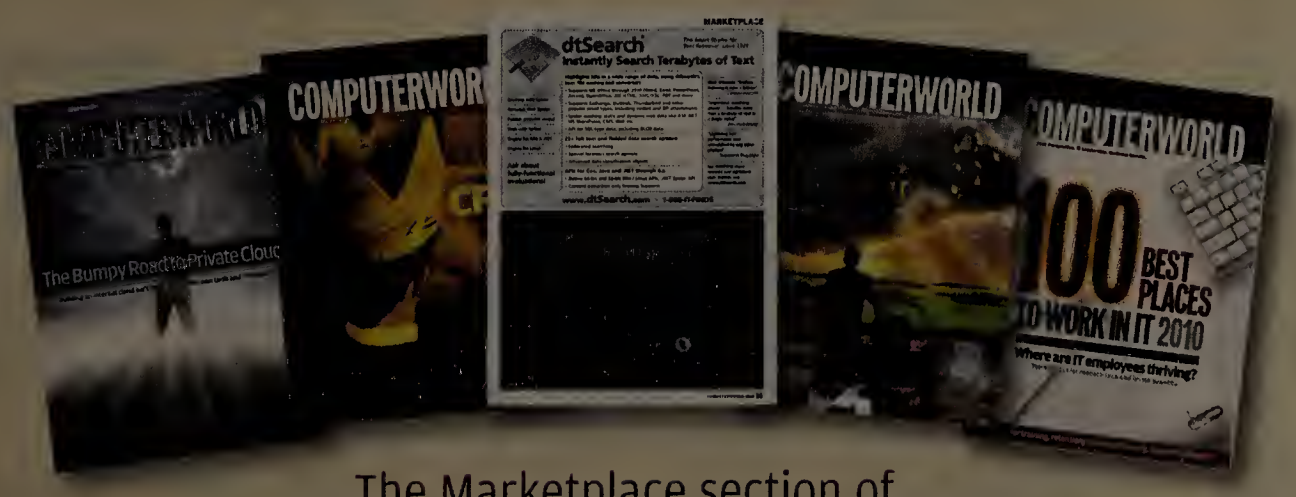

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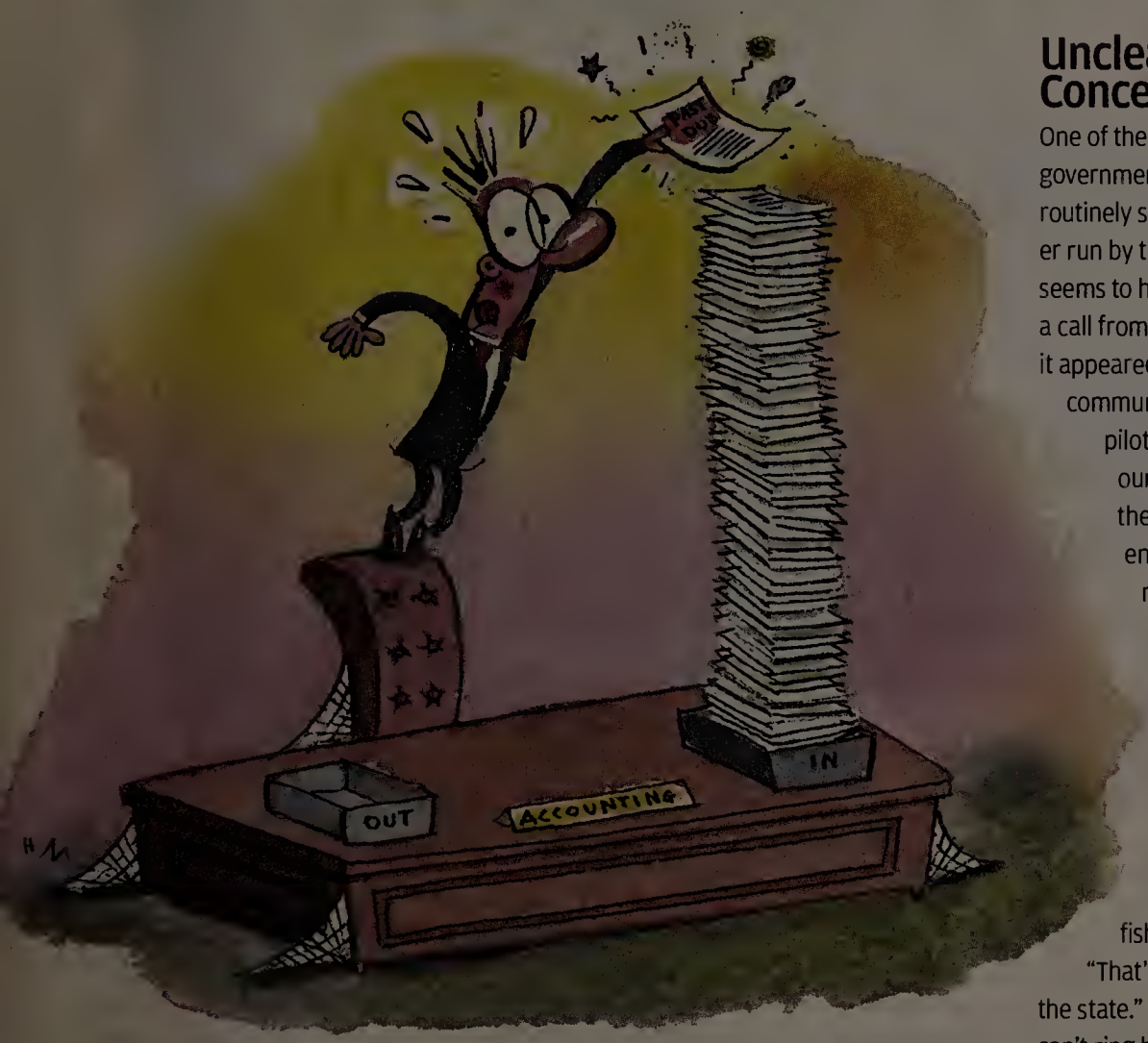

HAL MAYFORTH

What's the Rush?

IT pilot fish at a state agency hears from an office with network connectivity problems, so he calls the provider's support line – and the response isn't what he expects. "Well, your bill is three months past due, so we need that paid up before we can restore service," service rep says. Fish knows the bills are sent straight to the accounting department at the agency's headquarters. A call to Betty, who should be handling those bills, hits voice mail, so fish leaves a message, then sends an email too. But given the seriousness of the problem, fish decides to phone a friend in the department. Any way of getting in touch with Betty? "Oh, she left two months ago," fish's friend says. "We're still interviewing for her position." What? Where's your supervisor? Who took over paying the accounts? "My supervisor is on vacation for another two weeks, and the bills are stacked in the in-box on the empty desk. The task was never re-assigned." Sighs fish, "Surprisingly, I was able to talk the network provider into turning our service back on by faxing them a letter on state letterhead, promising them payment as promptly as possible – which I'm sure was another three months down the road."

Unclear on the Concept

One of the departments in this county government uses an application that routinely sends data updates to a server run by the state – and something seems to have stopped working. "I got a call from the department saying that it appeared that the county-to-state communication was down," says a pilot fish in the loop. "I examined our end and concluded that the problem was on the state end, or at least outside of our network. I explained that I thought we would have to send a help request to the state, and I asked if they had a contact name and number. After a lengthy on-hold session, I was given a phone number." Which office is this? fish asks. Who's number is it?

"That's Wilma F., the IT director for the state." Are you kidding!? fish says. I can't ring her up for this. "Oh, it's OK – she doesn't work there anymore."

Just in Case

This organization is moving forward on a project to replace its legacy production system, and one IT pilot fish is sifting through help desk requests that never did get closed. "I came across an ancient ticket and copied the request into an email that I sent to the person making the request, asking if the service was still needed," fish says. The reply he gets? "This is two years old, and I have no idea what it is and Joe doesn't either. Cancel the request for the old system, but it may be something we want to make sure happens in the new one."

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SCOT FINNIE

A Running Start to 2012

> The most significant development in 2012 will be progress toward conquering big data.

FOR IT, 2011 WAS A TRANSITIONAL YEAR. A lot of big things were on the horizon (data center as a service, for instance), but few of the profound concepts jelled. The consumerization of IT arrived in full measure, and cloud computing stopped being science fiction. Will the changes that take place in 2012 be more concrete? Here's my list of likelihoods for the new year.

Big data. The benefits of business intelligence and analytics have never been more keenly desired than they are right now. The trouble is, most corporate data doesn't line up into nice, structured rows; it comes in a wide variety of formats. This makes harnessing the huge volumes of data we now have at our disposal a tall technical hurdle. Hadoop, the software framework and file system that many believe will be an important tool for mastering big data, is promising. There's a long way to go, but progress toward conquering big data will be the most significant development in 2012.

CoIT, BYOD and mobile. In 2012, discussions about whether to embrace or clamp down on the consumerization of IT (CoIT) and the trend of employees bringing their own devices to work (BYOD) will begin to look silly. Consumer technologies can be put to work. And as long as that's the case, they'll be part of the workplace. It's time to get practical and start focusing on how you manage security and other aspects of those technologies. You also need a strategy for managing and supporting mobile apps.

Social media and the enterprise. It's too late for most companies to create internal social networks; they're not going to succeed. And attempts to block Facebook and Twitter are pointless. Those are the social sites that people devote their time to — they're the lingua franca of social media. The question is, will companies such as Facebook create services that are useful to enterprises? If they do, a new social media explosion will begin.

Cloud computing. By the end of 2012, cloud computing may start to look a bit like a rumpled old suit. The problems will be glaring, and we will have more examples of cloud gone wrong. But we'll also see solutions to these problems begin to emerge, as well as some early best practices. Cloud is here to stay. The only question the jury is out on is which aspects of cloud will take off.

Virtualization. Server virtualization (which may seem old hat to some of us) will grow vigorously in 2012. Why? Because many companies have yet to adopt it, and their server rooms are filled with equipment that should have been replaced in 2008. As enterprises seek to modernize their hardware, many will turn to server virtualization to stretch their capital-expenditure budgets.

Tablets vs. PCs. Will tablets really replace PCs? No. The truth is that tablets aren't replacing notebooks on the business desktop; they're an extension of the computer experience for some. Short term, at any rate, the tablet sales explosion has been overrated as an agent of change for enterprise IT. The advent of lightweight but powerful 15-in. ultrabooks will be the breakthrough that keeps PCs relevant in a world where people have been seduced by the convenience of tablets.

Security. The confluence of constrained budgets and the rise of more sophisticated hacking techniques could easily spell disaster for some enterprises in 2012. It's a great time for a security review.

Best wishes to all of you for 2012. ◆

Scot Finnie is *Computerworld*'s editor in chief. You can contact him at sfinnie@computerworld.com and follow him on Twitter (@ScotFinnie).

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